

**UNITED STATES DEPARTMENT OF COMMERCE****Patent and Trademark Office**

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/373,355 08/12/99 DEDERIAN G M4065.0069/P

MMC2/1012

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EXAMINER

NGUYEN, C

ART UNIT

PAPER NUMBER

2811

DATE MAILED:

10/12/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/373,355

Applicant(s)

GARO VERDERIAN

Examiner

CUONG Q NGUYEN

Group Art Unit

281

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE Three MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

- ☐ Responsive to communication(s) filed on _____.
- ☐ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- ☒ Claim(s) 37-45 is/are pending in the application.
Of the above claim(s) _____ is/are withdrawn from consideration.
- ☐ Claim(s) _____ is/are allowed.
- ☒ Claim(s) 37-45 is/are rejected.
- ☐ Claim(s) _____ is/are objected to.
- ☐ Claim(s) _____ are subject to restriction or election requirement.

Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
 - ☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been received.
 - ☐ received in Application No. (Series Code/Serial Number) _____.
 - ☐ received in this national stage application from the International Bureau (PCT Rule 1.7.2(a)).

*Certified copies not received: _____

Attachment(s)

- ☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 2 ☐ Interview Summary, PTO-413
- ☒ Notice of Reference(s) Cited, PTO-892 ☐ Notice of Informal Patent Application, PTO-152
- ☒ Notice of Draftsperson's Patent Drawing Review, PTO-948 ☐ Other _____

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DETAILED ACTION

Oath/Declaration

1. The oath/declaration filed on 08-12-99 is acceptable.

Drawings

2. The drawings are objected to by the PTO Draftsperson for the reasons noted on the attached Notice of Draftsperson's Patent Drawing Review, form PTO-948.

Information Disclosure Statement

3. The Information Disclosure Statement filed on August 12, 1999 has been considered.

Claim Rejections - 35 U.S.C. § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 37, 38, 39, 41, 42, and 43 are rejected under 35 U.S.C. 102(a) as being anticipated by Baum et al. (US 5,783,716).

Regarding claims 37, 38, 39, 41, 42, Baum et al. discloses a capacitor structure comprising: an electrode (a first electrode) of the capacitor formed of a continuous platinum

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group metal (a Pt layer) in a CVD chamber with the present of both oxygen and nitrous oxide at temperature about 200-300⁰ C. See Baum et al.'s col.9 lines 5-20 and col.10 lines 1-12.

It is inherent that the capacitor structure including a second electrode and a dielectric formed at between the first and second electrodes because the capacitor structure has to have two electrodes and a dielectric layer at between two electrodes.

The limitations "formed in the presence of both oxygen and nitrous oxide" in claim 37, and "formed by depositing platinum in a CVD deposition chamber in the presence of both oxygen and nitrous oxide at a predetermined temperature and pressure" in claim 41 are taken to be a product by process limitation and are given no patentable weight. Claims 42 and 43 recite process details and are also given no patentable weight. A product by process claim directed to the product per se, no matter how actually made, *In re Hirao*, 190 USPQ 15 at 17 (footnote 3). See *In re Fessman*, 180 USPQ 324,326(CCPA 1974); *In re Marosi et al.*, 218 USPQ 289,292 (Fed. Cir. 1983); and particularly *In re Thorpe*, 227 USPQ 964,966 (Fed. Cir. 1985), all of which make it clear that it is the patentability of the final structure of the product "gleaned" from the process steps, which must be determined in a "product by process" claim, and not the patentability of the process. See also MPEP 2113. Moreover, an old or obvious product produced by a new method is not a patentable product, whether claim in "product by process" claim or not.

Claim Rejections - 35 U.S.C. § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 44 and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Baum et al.

Regarding claim 44, Baum et al. teaches that the depositing platinum is an electrode of a perovskite capacitor, Baum et al. does not teach that the capacitor electrode is a lower capacitor electrode.

It is noted that the capacitor having both upper and lower capacitor electrode being formed of platinum is well known and convention. See references US5838605 and US5578867 which were cited to support the well known position.

Therefore, it would have been obvious to one of ordinary skill in the art to form the platinum electrode as a lower capacitor electrode.

Regarding claim 45, Baum et al. teaches that the depositing platinum layer having a thickness of about less than 200 nm which is including a thickness of 500 angstroms. See Baum et al.'s col.10 lines 5-10.

Conclusion

6. Papers related to this application may be submitted to Technology center (TC) 2800 by facsimile transmission. Papers should be faxed to TC 2800 via the TC 2800 Fax center located in Crystal Plaza 4, room 4-C23. The faxing of such papers must conform with the notice published in the Official Gazette, 1096 OG 30 (November 15, 1989). The Group

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2811 Fax Center number is (703) 308-7722 and 308-7724. The Group 2811 Fax Center is to be used only for papers related to Group 2811 applications.

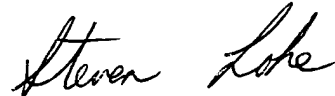
7. Any inquiry concerning this communication or any earlier communication from the Examiner should be directed to CUONG Q NGUYEN whose telephone number is (703) 308-1293. The Examiner is in the Office generally between the hours of 6:30 AM to 5:00 PM (Eastern Standard Time) Monday through Thursday.

8. Any inquiry of a general nature or relating to the status of this application should be directed to the Technology Center Receptionists whose telephone number is 308-0956.

CN

October 5, 2000

Steven Loke
Primary Examiner

A handwritten signature in black ink, appearing to read "Steven Loke", written in a cursive style.